

REMARKS

Claims 1-20 are currently active.

Antecedent support for the amendments to the claims is found on page 10, lines 10-14.

The Examiner has rejected Claims 1, 2, 13 and 14 as being anticipated by Segal. Applicant respectfully traverses this rejection.

Segal specifically teaches a set of firewall-type commands that include lists of which nodes, sources, networks to use with certain destinations. These commands can be utilized by filtering devices and/or security devices such as firewalls, ingress nodes, switches which would be informed which destination nodes, addresses, ports are permitted to which source nodes in networks. See column 3, lines 35-45. It is clear from these teachings that these devices have the list themselves and do not have the functionality regarding the list located in a separate location. The Examiner is interpreting the language of Segal in such a way that he finds applicant's claimed invention. However, it is submitted the Examiner is reading teachings into Segal which are not there. To clarify this distinction between the claimed invention and Segal in view of the Examiner's last Office Action, the claimed

invention has been amended to include the limitation that the first inspection engine and the second section engine which are connected to the switch are not in line with the internal network and the external network. In contrast, Segal teaches the common prior art structure of inspection engines that are in line. It must be stressed that the applicant's claims are further limited by the fact that each inspection engine receives traffic from the switch, processes the traffic to determine whether it is desired traffic or undesired traffic, prevents undesired traffic from passing through the inspection engine and sends the desired traffic back to the switch. This further emphasizes the not in line architecture of applicant's claimed invention. There is no teaching a suggestion of this limitation in Segal.

Segal does not teach a first inspection engine or a second inspection engine that are not in line with an internal network and an external network which receive traffic from the switch and which send desired traffic back to the switch.

Segal teaches a network 40 that comprises various subnetworks 42, 44, 48, 52 and 53 and firewall units 43, 45, 46, 47, 49 and 50. The firewall units comprise a shared list setting forth a plurality of lists of nodes and a set of access privileges for each listed node. See column 2, lines 50-65. Segal teaches that a protocol for the network 40 would provide for lists sent by each node indicating which other nodes are permitted to receive from, and transmit to it, and what type of access they are allowed. This information is detected by each

firewall unit which limits transmissions to the route only to their intended destinations. The firewall units have the capability to accept signals from the network for only certain defined purposes. The list of intended recipients can have any desired granularity. The situation can be improved upon by providing a set of firewall-type commands that include lists of which nodes, sources, networks are allowed to use certain destinations. These commands can be utilized by filtering devices and/or security devices such as firewalls, and ingress nodes, switches, which would be informed which destination nodes, addresses, ports are permitted to which source nodes or networks. These filters and devices and/or security devices may be separate standalone components or the capability may be integrated into other possibly already existing devices. See column 3, lines 20-45.

Segal teaches that a network node has a memory 104 which includes software such as network protocol programs 106, and an allowable sender and recipient list 108 for transmissions. See column 3, lines 45-56.

Segal teaches that a node originates a new list with access protection and updates the local list already with the node. The list is then encrypted and then transmitted to the security devices on the network. A node comprising a security device receives the encrypted list and then decrypts the received list. A decision is then made to determine

whether the received list is newer than the local list. If it is, it is saved, and if it is not, it is discarded. See column 4, lines 1-20.

There are several critical distinctions between applicant's claimed invention and Segal. There is the distinction that applicant's claimed invention requires a switch and at least two separate inspection engines, the first inspection engine and the second inspection engine. Both the first inspection engine and the second inspection engine receive traffic from the switch. Each inspection engine processes the traffic that it has received and determines whether it is desired traffic or undesired traffic. Each inspection engine prevents undesired traffic from passing through it and sends the desired traffic back to the switch. Once the switch receives the desired traffic, it then sends it to their respective destination that corresponds to the inspection engine that processed the data.

There is no teaching or suggestion whatsoever for such a specific architecture in Segal. What is critical to Segal is a list that tells each firewall which destination it can communicate with. For this reason alone, that there is no distributed processing of the traffic apart from the switch at an inspection engine that receives the traffic, and then returns only a desired portion of the traffic to the switch, Claims 1 and 13 are not anticipated by Segal.

As is stated in the background of the above-identified patent application, hardware-based systems tend to be very fast, but don't deal well with very complex operations. Hence, software-based systems are still the norm, even with all their problems. In a system where a single processor that is fast enough, there's still the problem that if the processor dies, then the whole system grinds to a standstill. It is highly undesirable. One of the advantages of applicant's claimed invention is that the determination of whether the traffic is desirable or undesirable is determined at a separate inspection engine apart from the switch, where there are at least two inspection engines, so that if one inspection engine fails, the operation of the switch can still proceed, and even if necessary, use the second inspection engine. Segal does not recognize this whatsoever.

Yet another critical distinction is that Segal teaches a list is created and circulated amongst the nodes which identifies to each of the nodes which destinations can or cannot receive traffic from a given node. This list does not distinguish between desired and undesired traffic, but simply prevents all traffic from reaching a certain destination if that destination is on a list with respect to a given node. Thus, there is no teaching or suggestion of any type of inspection engine, let alone a first inspection engine and a second inspection engine, which are both connected to the switch which receive traffic from the switch, process the traffic to determine whether it is desired traffic or undesired traffic, which prevents undesired traffic from passing through the respective engine and which send desired traffic

back to the switch. The switch then in turn, sends the desired traffic to the respective destination that has been processed by the respective engine. In fact, Segal is silent about whether traffic is desired or undesired and is completely unconcerned with separating the undesired traffic from the desired traffic that is to reach a given destination. For this reason also, Claims 1 and 13 are not anticipated by Segal.

Accordingly, Claims 1, 2, 13 and 14 are patentable over Segal.

The Examiner has rejected Claims 3-12 and 15-20 as being unpatentable over Segal in view of Huang. Applicant respectfully traverses this rejection.

Referring to Huang, there is disclosed a scalable switching network. There is no teaching or suggestion anywhere in regard to an inspection engine, let alone an inspection engine which processes the traffic to determine whether it is desired traffic or undesired traffic, and which prevents undesired traffic from passing through it and then sends the desired traffic back to the switch, as found in applicant's claimed invention. Huang has nothing to do with the teachings of Segal in regard to the claimed invention. The Examiner is citing Huang for the teachings of port and connections to various nodes.

Huang teaches various architectures that are based on a switching fabric of routers to implement a scalable switching network. The switching fabric supplies the connectivity. The routers supply the routing, maintenance, and administrative functions. Huang teaches various architectures such as the switching network 80 shown in figure 1. The other figures taught by Huang show different architectural configurations of a switching fabric. What is key though in regard to the teachings of Huang, is that they are all basically switches. However, applicant freely admits that he did not discover or invent the switch, or the various connectivities in a switching network. However, applicant's claimed invention depicts that applicant has separated the inspection engine from the switch and uses the switch to divert the traffic to the first inspection engine or the second to inspection engine for processing; and then receives back from the first inspection engine or the second inspection engine the desired traffic so the switch can send the desired traffic onto the first destination or the second destination depending on from which inspection engine the desired traffic came from. Thus, not only does Huang fail to even teach the first inspection engine but also fails to teach a second section engine as found in applicant's claimed invention.

Accordingly, Claims 1 and 13 are in patentable over the applied art of record. Claims 3-12 are dependent to parent Claim 1 and are patentable for the reasons Claim 1 is patentable.

It must be stressed that there is no teaching or suggestion in Segal of the limitation that the switch has a first port and a second port connected to an external network receives traffic from the external network, said switch directing traffic received at the first port to the first firewall processing engine and directing traffic received at the second port to the second firewall processing engine. There is no need or even hint of this limitation in regard to Segal. The only reason to take such a teaching out of Huang and introduce it into Segal is from hindsight from applicant's claims this is not patent law. Accordingly, Claim 3 is patentable over Segal in view of Huang.

In regard to Claim 8, Segal does not teach or suggest or even recognize the need for the switch to rebalance traffic for a security group when one of the firewall processing engines serving a security group fails across the other firewall processing engines serving the security group. Huang does not recognize to rebalance traffic where the firewall protection with the inspection engine is separate and apart from the switch, and there are a plurality of inspection engines across which the rebalancing occurs. Again, the Examiner is picking and choosing the claimed elements from the applied art of record, and having found them in different references, is simply concluding that applicant's claimed invention must be obvious. Besides the fact that this is using hindsight, this is also contrary to patent law.

Claims 14-20 are dependent to parent Claim 13 and are patentable for the reasons Claim 13 is patentable.

In view of the foregoing amendments and remarks, it is respectfully requested that the outstanding rejections and objections to this application be reconsidered and withdrawn, and Claims 1-20, now in this application be allowed.

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I hereby certify that the correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231,
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